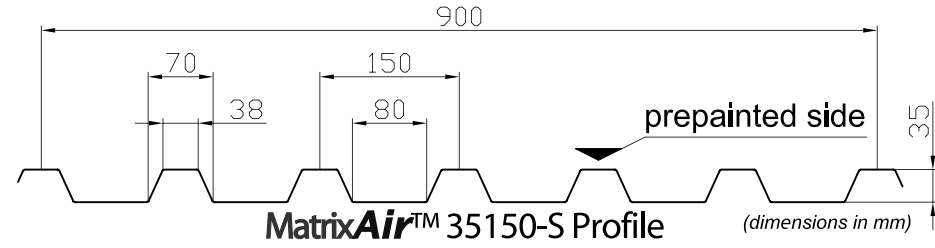




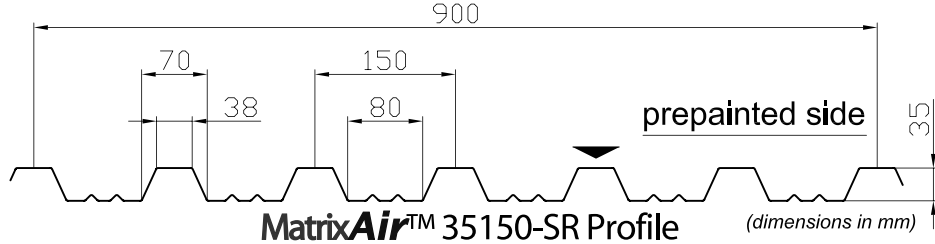
Cladding Specifications for MatrixAir™ Solar Air Heating Collector - metric

35150-S, 35150-SR

35150-S (without small ribs) is available in base steel nominal thicknesses of 0.46mm, 0.61mm, 0.76mm, 0.91mm and 1.22mm



35150-SR (with small ribs) is available in base steel nominal thicknesses of 0.46mm, 0.61mm and 0.76mm.



Physical Properties (per metre width) In accordance with CSA Specification S136-01									
Base steel nominal thickness (mm)	Nominal thickness with Z275 coating (mm)	Mass with Z275 coating (kg/m ²)	Section Modulus		Moment of inertia midspan (mm ⁴ x 10 ³)	Factored Resistance			
			Midspan (mm ³ x 10 ³)	Support (mm ³ x 10 ³)		Moment		Reaction	
						Midspan (Nm)	Support (Nm)	Exterior (kN)	Interior (kN)
0.46	0.5	5.33	4.76	4.55	117.5	985.3	941.9	3.9	5.2
0.61	0.65	6.90	6.88	6.59	158.4	1424.2	1364.1	6.7	9.2
0.76	0.8	8.90	8.97	8.41	197.8	1856.8	1740.9	10.2	14.3
0.91	0.95	10.08	10.72	10.25	237.4	2219.0	2121.8	14.3	20.5
1.22	1.26	13.26	14.12	13.88	315.3	2922.8	2873.2	24.2	35.5

Load Table Maximum Specified Uniformly Distributed Load in kN/m ² (kPa)																
Support spacing (mm)		1-Span Base steel nominal thickness (mm)					2-Span Base steel nominal thickness (mm)					3-Span Base steel nominal thickness (mm)				
		0.46	0.61	0.76	0.91	1.22	0.46	0.61	0.76	0.91	1.22	0.46	0.61	0.76	0.91	1.22
1200	B	3.6	5.3	6.9	8.2	10.8	2.3*	4.1*	6.4*	7.9	10.6	2.6*	4.6*	7.2*	9.8	13.3
	D	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
1400	B	2.7	3.9	5.1	6.0	8.0	2.0*	3.5*	4.7	5.8	7.8	2.3*	4.0*	5.9	7.2	9.8
	D	R	3.7	4.7	5.6	7.5	R	R	R	R	R	R	R	R	R	R
1600	B	2.1	3.0	3.9	4.6	6.1	1.7*	2.8	3.6	4.4	6.0	2.0*	3.5*	4.5	5.5	7.5
	D	1.9	2.5	3.1	3.8	5.0	R	R	R	R	R	R	R	R	R	R
1800	B	1.6	2.3	3.1	3.7	4.8	1.5*	2.2	2.9	3.5	4.7	1.8*	2.8	3.6	4.4	5.9
	D	1.3	1.8	2.2	2.6	3.5	R	R	R	R	R	R	R	R	R	R
2000	B	1.3	1.9	2.5	3.0	3.9	1.3	1.8	2.3	2.8	3.8	1.6	2.3	2.9	3.5	4.8
	D	1.0	1.3	1.6	1.9	2.6	R	R	R	R	R	R	R	R	R	R
2200	B	1.1	1.6	2.0	2.4	3.2	1.0	1.5	1.9	2.3	3.2	1.3	1.9	2.4	2.9	4.0
	D	0.7	1.0	1.2	1.4	1.9	R	R	R	R	R	R	1.8	2.3	2.7	3.6
2400	B	-	1.3	1.7	2.1	2.7	0.9	1.3	1.6	2.0	2.7	1.1	1.6	2.0	2.5	3.3
	D	-	0.7	0.9	1.1	1.5	R	R	R	R	R	1.0	1.4	1.8	2.1	2.8
2600	B	-	1.1	1.5	1.8	2.3	0.7	1.1	1.4	1.7	2.3	-	1.3	1.7	2.1	2.8
	D	-	0.6	0.7	0.9	1.2	R	R	R	R	R	-	1.1	1.4	1.7	2.2
2800	B	-	-	1.3	1.5	2.0	0.6	0.9	1.2	1.4	2.0	-	1.2	1.5	1.8	2.4
	D	-	-	0.6	0.7	0.9	R	R	R	R	R	-	0.9	1.1	1.3	1.8
3000	B	-	-	1.1	1.3	1.7	0.6	0.8	1.0	1.3	1.7	-	1.0	1.3	1.6	2.1
	D	-	-	0.5	0.6	0.8	R	R	R	R	R	-	0.7	0.9	1.1	1.4
3200	B	-	-	-	1.2	1.5	0.5	0.7	0.9	1.1	1.5	-	-	1.1	1.4	1.9
	D	-	-	-	0.5	0.6	R	R	R	R	R	-	-	0.7	0.9	1.2

NOTES - LIMIT STATES DESIGN:

- Properties and loads are based on Grade 230 Steel with a minimum yield stress of 230 MPa, and a maximum stress under factored loads of 207 MPa.
- Row B indicates the load capacity based on strength. Strength capacity should be checked against [Specified Live Load] + [0.833 x Specified Dead Load].
- Row D indicates the load capacity based on deflection of 1/180th span. For allowable deflection of 1/90th span, values in Row D can be doubled, but must not exceed the value in Row B. The symbol "R" indicates the load for strength governs. Deflection capacity should be checked against Specified Load(s).
- An * indicates capacity has been reduced to account for web crippling